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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,360	10/30/2001	Bernd Scheffler	TI-31106	9130
23494	7590	03/09/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			RAMAKRISHNAIAH, MELUR	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/021,360	Applicant(s) SCHEFFLER, BERND	
	Examiner Melur Ramakrishnaiah	Art Unit 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 14, 19-24 and 26-29 is/are rejected.
- 7) ☒ Claim(s) 8-13, 15-18 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 14, 19-22, 24, 26, 28, are rejected under 35 U.S.C 102(b) as being anticipated by Wheatley, III, et al. (US PAT: 5,107,225, hereinafter Wheatley).

Regarding claim 1, Wheatley discloses an automatic gain control apparatus, comprising: a first input for receiving from a communication receiver information indicative of signal strength of a received communication signal as shown at 22 (fig. 1), and hardware (22, fig. 1) coupled to the first input and responsive to signal strength information for determining gain control setting for communication receiver without incurring program execution delay of a data processor (fig. 1, col. 3 lines 1-63).

Regarding claim 19, Wheatley discloses a communication receiver apparatus, comprising: a receiver portion (for example 16, fig. 1) for receiving and processing communication signals, and a control portion at (22, fig. 1) for determining automatic gain control setting for the receiver portion, the control portion including a first input at (22, fig. 1) coupled to the receiver portion for receiving therefrom information indicative of signal strength of a received communication signal, the control portion further including hardware (22, fig. 1) coupled to the first input and responsive signal strength information for determining the automatic gain control setting without execution delay of a data processor (fig. 1, col. 3 lines 1-63).

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Regarding claim 26, Wheatley discloses an automatic gain control method, comprising: providing information indicative of signal strength of a communication signal received by a communication receiver, and responsive to the signal strength information, determining an automatic gain control setting for the communication receiver without incurring program execution delay of a data processor (fig. 1, col. 3 lines 1-63).

Regarding claims 2-4, 14, 20-22, 24 and 28, Wheatley further teaches the following: communication receiver is an RF receiver (col. 2 lines 47-49), signal strength information includes an RSSI signal, RSSI signal is an RSSI signal from an amplifier portion of the communication receiver, second input (reads on RSSI reference at 22, fig. 1) for receiving information indicative of a predetermined power level value, the hardware (22, fig. 1) coupled to the second input and also responsive to the power level information for determining the automatic gain control setting without incurring program execution delay of a data processor, performing the determining step also in response to information indicative of a predetermined power level value (col. 2 lines 5-15).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 5-7, 23, 27, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wheatley in view of Suganuma et al. (US PAT: 5,507,023, hereinafter Suganuma).

Regarding claims 5-7, 23, 27, 29, Wheatley does not teach the following: second input for receiving information indicative of desired bias level of an amplifier of communication receiver, the hardware coupled to the second input and also responsive to the bias level information for determining the automatic gain control setting without incurring program execution delay of a data processor, hardware includes difference circuitry responsive to the bias level information and the signal strength information for determining therefrom a deviation value indicative of a difference between the bias level and the signal strength, hardware includes range checking circuitry coupled to the difference circuitry for determining whether deviation value is within a predetermined range, determining step in response to information indicative of: a desired bias level of an amplifier of the communication receiver, a gain value selected for an LNA of the communication receiver.

However, Suganuma discloses receiver with an agc circuit capable of expanding a dynamic range which teaches the following: second input at (21, fig. 4) for receiving information indicative of desired bias level of an amplifier of communication receiver, the hardware coupled to the second input and also responsive to the bias level information for determining the automatic gain control setting without incurring program execution delay of a data processor, hardware includes difference circuitry (21, fig. 1) responsive to the bias level information and the signal strength information for determining

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therefrom a deviation value indicative of a difference between the bias level and the signal strength, hardware includes range checking circuitry (constituted by 23 and 22, fig. 4) coupled to the difference circuitry for determining whether deviation value is within a predetermined range, determining step in response to information indicative of: a desired bias level of an amplifier of the communication receiver, a gain value selected for an LNA of the communication receiver (col. 1, line 58 – col. 2, line 14; fig. 4 col. 3, line 45 – col. 4, line 44).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Wheatley's system to provide for the following: second input for receiving information indicative of desired bias level of an amplifier of communication receiver, the hardware coupled to the second input and also responsive to the bias level information for determining the automatic gain control setting without incurring program execution delay of a data processor, hardware includes difference circuitry responsive to the bias level information and the signal strength information for determining therefrom a deviation value indicative of a difference between the bias level and the signal strength, hardware includes range checking circuitry coupled to the difference circuitry for determining whether deviation value is within a predetermined range, determining step in response to information indicative of: a desired bias level of an amplifier of the communication receiver, a gain value selected for an LNA of the communication receiver as this arrangement would facilitate dynamic range of AGC amplifier, thereby producing output signal free from distortion as taught by Suganuma (col. 5 lines 53-67).

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5. Claims 8-13, 15-18, 25, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on M-F 6:30-4:00; every other F Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Melur Ramakrishnaiah
Primary Examiner
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